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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HEINRICH, SAMUEL M

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/517,656
Filing Date: December 13, 2004
Appellant(s): KIDOKORO ET AL.

Nataliya Dvorson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 24, 2007 appealing from the Office action mailed October 17, 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

A substantially correct copy of appealed claims 1, 3, 5, and 6 appears on pages 13 and 14 of the Appendix to the appellant's brief. The minor errors are as follows:
Claim 1, line 3, the words "parameter settings" are run together into one word.

(8) Evidence Relied Upon

JP57186378A, Inventor Kanehara Yoshihide, Applicant Mitsubishi Electric Corp,
Published November 16, 1982.

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JP405022941A, Inventor Toru Abe, Assignee Hitachi Metals LTD, Published January 29, 1993.

JP358141689A, Assignee Mitsubishi Electric Corp, Inventor Akiyuki Shimamura et al, Published August 23, 1983.

JP407111427A, Inventor Makoto Yoshigaki, Assignee Japan Radio Co LTD, Published April 25, 1995.

JP403011904A, Assignee Mitsubishi Electric Corp, Inventor Hideo Koo, Published January 21, 1991.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP57186378A (Yoshihide) in view of JP405022941A and in view of JP358141689A and JP407111427A.

JP57186378A (Yoshihide) sets forth a laser device wherein a laser beam is output by discharging current at a power pulse train with a higher frequency than the laser output response frequency, and indicates that the laser is controlled by thinning out or proportioning this power pulse train. Applicant has stated that "the laser output power... is densely or rarely controlled using the discharging electric power of each pulse being constant... the number of pulse trains is set based on the strength of laser output power."

JP405022941A describes general well known cost reduction by pulse modulating in response to pulse width.

JP358141689A and JP407111427A describe control for motor and volume control using pulse trains controlled in response to pulse width.

Having a power source output a pulse train and being controlled by pulse width would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art in order to reduce operation cost. The use of a power pulse train with a higher frequency than the laser output response frequency is the same as setting the switching cycle to be faster than the time constant of discharge power and laser output, and controlling the overall width of this thinned or proportioned pulse train would

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have been obvious at the time applicant's invention was made to a person having ordinary skill in the art in order to obtain output control having no dead band.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP57186378A in view of JP405022941A and in view of JP358141689A and JP407111427A as applied to claim 1 above, and further in view of JP403011904A.

JP403011904A describe reducing pulse width variations by switching modes. The use thereof with JP57186378A would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art in order to reduce or prevent sudden laser output change.

(10) Response to Argument

Applicant argues that Yoshihide discloses that its invention does not generate a dead band and therefore there is no proper reason to combine references pertaining to dead band output control with Yoshihide. This argument is not convincing. Yoshihide has provided controllability of laser output. JP405022941, JP358141689, and JP407111427 also provide output control and describe reasons such as cost reduction and size reduction of apparatus as reasons for providing pulse train modulation in response to desired outputted pulse width. Reducing operation cost is motivation for further control of the laser disclosed by Yoshihide.

Applicant argues that JP405022941, JP358141689, and JP407111427 do not teach or suggest the claimed operation of a number of command pulses being thinned out based on setting the output pulse width. This argument is not convincing. Each of JP405022941, JP358141689, and JP407111427 describe providing pulse train

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modulation in response to desired outputted pulse width and therefore the control parameters for the pulse width settings are automatically set at some value.

Applicant argues that JP405022941, JP358141689, and JP407111427 do not control their own output pulses for the purpose of effecting a change in the pulse output characteristic of an independent unit. This argument is not convincing. The control of output pulses in Yoshihide is control in an independent unit and incorporating control features of JP405022941, JP358141689, and JP407111427 into Yoshihide would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art in order to provide applied control to the laser device.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Samuel M Heinrich/

Primary Examiner, Art Unit 1793

Conferees:

/Jonathan Johnson/

Jonathan Johnson, SPE AU 1793

/PATRICK RYAN/

Supervisory Patent Examiner, Art Unit 1795